

ABSTRACT OF THE DISCLOSURE

A system and method for acquiring position information of a movable apparatus relevant to a specific axis is disclosed. In one embodiment, an interferometer generates first and second beams and various beam-steering members are located to define beam path segments for the two beams, but no beam path segment varies in length in unity with displacements of the movable apparatus along the specific axis. In another or the same embodiment, each beam path segment in which the first beam either impinges or has been reflected from the movable apparatus is symmetrical to a corresponding beam path segment of the second beam. The movable apparatus may be a wafer stage in which the "specific axis" is the exposure axis of a projection lens, but with all optical members which cooperate with the stage being located beyond the ranges of the wafer stage in directions perpendicular to the lithographic exposure axis.